

Subject: glowbugs V1 #208

glowbugs

Thursday, December 18 1997

Volume 01 : Number 208

Date: Wed, 17 Dec 1997 16:31:52 -0500

From: "Ornitz, Barry L" <ornitz@eastman.com>

Subject: RE: 6080

I always thought the 6080 and 6AS7 were the same tube with the 6336 being a higher current/higher dissipation version. Without my data books here at work, I cannot say for sure. As Bob says, these tubes were generally used in series voltage regulators because of their extremely low plate resistance (around 280 ohms). From the Svetlana data sheet for the 6AS7, the transconductance is fairly high (for a triode) at 5500 uMho.

Using the formula for voltage amplification:

$$\mu = G_m \times R_p = 5500E-6 \times 280 = 1.54$$

This is a very low voltage gain which explains why the feedback in a Hartley (the turns ratio or coil tap position) is rather critical with these tubes. These tubes need an extremely high grid driving voltage compared to most other triodes.

As for their use as a switch tube, they are perfect for this. With -150 volts (at negligible current) on the grid, the tube will withstand over 200 volts. But when the grid is grounded, the tube conducts as much as 100 milliamps with only about 30 volts drop.

73, Barry L. Ornitz WA4VZQ ornitz@tricon.net

>From: rdkeys@csemail.cropsci.ncsu.edu [SMTP:rdkeys@csemail.cropsci.ncsu.edu]
>6080's will work, but 6AS7G's are better. In my hands the 6080's as
>well as 6336's (even bigger monster) tend to draw very high plate
>currents. The biasing and feedback taps are more critical than with
>the 6AS7G. There is a 6583 or something like that that is an equivalent
>to the 6336, but with a different mu, that works quite well in Hartley
>service, also. I use it in my Grammer 1932 Hartley 160M set. The
>classic 6N7 tube should work well, also.

>

>As an aside, I wonder how well these low-mu pass regulator tubes would work
>as switches for keying (a la the old '45 keyer tubes). I would
>expect them to work rather well as keyer tubes, but have not tried them
>yet. Barry Ornitz.... you got any thoughts on using these as keyer tubes?
>

Date: Wed, 17 Dec 1997 16:53:30 -0700

From: Dexter Francis <cwest@xmission.com>

Subject: Re: 6080

If I read the book correctly the 6080 is a rugged 6AS7 and the 6336 is

two 6080's in the same bottle.

- df

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Date: Wed, 17 Dec 1997 20:58:22 -0700 (MST)
From: Jack Meadows <jackmead@getnet.com>
Subject: Re: 813 xtal osc.

Hi Peter,

For the screen grid dropping resistor,
I was just going to use five 10k ohm 5 watt wirewound resistors in
series. I'll probably put them in tomorrow. I plan to just solder
them onto terminal strips under the chassis.

I didn't know you were doing the 813 osc. How is it going?

I have been thinking about how I might vxo this thing. Bending the
xtal freq a little would sure add some utility but I'm getting
ahead of myself here...need to finish the basic osc. ha

> Jack, I wonder what you are going to use for the 50k at 25 watts, Grid
> Resistor (R3)? I paralleled (sandwiched between two single sided
> prepunched FG/G10 PC boards) ten, 500k ohms rated at 3 watts each, film
> resistors. I kludged up the load to pull 50 mA from 1500 vdc through
> the bank. RCA recommends 45 mA max on SG-2 at 1500 vdc plate. This
> circuit is set up to supply 0.030 A or 30 mA. After 15 minutes, POWER
> OFF PLEASE the resistor bank was barely warm. I used every other hole
> in the prepunched PCB grid pattern. If we start with 1 Meg ohm
> resistors and use 20 resistors (same 2 or 3 watt rating) Peter/KH6CTQ
>
>

Date: Wed, 17 Dec 1997 22:35:27 -0800 (PST)
From: Ken Gordon <keng@uidaho.edu>
Subject: Re: Regenny...

> Ken,
> Neither url seems to work. Help please

That's because I am a dolt. I changed the URL and didn't post the change.

Just go to:

<http://www.mines.uidaho.edu/~keng/>

and click on the link shown about half way down the page.

I shortened up the directory names to make things easier for me to put the files up.

Sorry, all.

Ken W7EKB

Date: Wed, 17 Dec 1997 22:50:08 -0800 (PST)
From: Ken Gordon <keng@uidaho.edu>
Subject: Oops...

I made some changes to the web page and forgot to post them to youse guys:

For Sandy's transmitter:

<http://www.mines.uidaho.edu/~keng/sch/tx/w5tvw/>

For the Jones regenny:

<http://www.mines.uidaho.edu/~keng/sch/rx/jonesregen/>

I think I have made a mistake in the regenny schematic in that I show the high-impedance side of the 1:3 audio transformer connected to the grid and the low-impedance side connected to the plate/headphones of the audio amp stage. The schematic from which I drew this did not make it clear which went where. I assumed that the grid circuit should be higher impedance than the previous stage's plate circuit, but now I am not sure that is correct. Could someone who knows more about this than myself take a look and let me know if it is right or not?

Ken W7EKB

Date: Thu, 18 Dec 1997 12:54:43 -1000
From: Peter Demmer <ampruss@hits.net>
Subject: Re: [Fwd: [CQ-Contest] FW: Guam Typhoon Mess! Message from KH2D.]

Peter Demmer wrote:

>

> John D. Peters wrote:

> >

> > More damage than we thought.

> >

> > I hope they are smart enough to use it as an opportunity to eradicate the

> > brown tree snake.

> >

> > 73 John

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> >
> > -----
> >
> > Subject: [CQ-Contest] FW: Guam Typhoon Mess! Message from KH2D.
> > Date: Wed, 17 Dec 1997 08:27:16 -1000
> > From: Ken Hoppe <khoppe@lava.net>
> > To: contest@puka.com
> >
> > Looks like Guam got it real bad this time!
> >
> > >Return-Path: <owner-cq-contest@contesting.com>
> > >From: "Ramirez, Kenneth (EXCH)" <GRAMIREZ@intermedia.com>
> > >To: "'cq-contest@contesting.com'" <cq-contest@contesting.com>
> > >Subject: [CQ-Contest] FW: Guam Typhoon Mess! Message from KH2D.
> > >Date: Wed, 17 Dec 1997 08:12:28 -0500
> > >Sender: owner-cq-contest@contesting.com
> > >X-List-Info: http://www.contesting.com/cq-contest-faq.html
> > >X-Sponsor: W4AN, KM3T, N5KO & AD1C
> > >
> > >
> > >
> > >-----
> > >Subject: Guam Typhoon Mess! Message from KH2D.
> > >
> > >>This is a relay from Jim, KH2D, well known tester from Guam. It may
> > >be awhile before we hear Guam on the air in the contests. Ken N4UK
> > >
> > >>Hafa Dude,
> > >>Typhoon is over. We got our ass kicked. Concrete telephone poles
> > >>all
> > >>over the
> > >>island snapped. Wires everywhere. No power. No water. Probably be 2-3
> > >>months
> > >>until they put the power back together. First typhoon I was ever
> > >>really
> > >>scared. The
> > >>house (concrete) was rattling and vibrating like hell. Eye went right
> > >>over
> > >>middle of
> > >>the island, and we were too far south to be in the eye, so we got the
> > >>eye
> > >>wall high
> > >>winds for about 3 hours. No trees left anywhere, except 2 little
> > >>beetlenuts.
> > >>Watta
> > >>mess. WH2U had a window blow out in radio room, about 2 feet from amp,
> > >>then
> > >>the wall caved in, so whole condo was flooded. KH2JU has 6 inches of
> > >>water in
> > >>the shack. NH2A house flooded. KH2A house 6 feet of water, and porch
> > >>blew
> > >>away. They are saying this is worst typhoon since Karen in 1962.
> > >>Cars blew
> > >>away,
> > >>I saw a bunch of 40 foot containers out in the road.....
> > >

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> > > Anyway, I got the generator going, and I am gonna look for you
> > >on 75,
> > >but I'm
> > >QRP, only 100 watts so probably won't work. I can do email with the
> > >laptop
> > >when I
> > >have the generator going....
> > >
> > >73, Jim
> Copy from K1ER/KH6 via KH6CTQ QRP info

End of glowbugs V1 #208
